

PHILMONT *Mobile* RADIO CLUB INC.

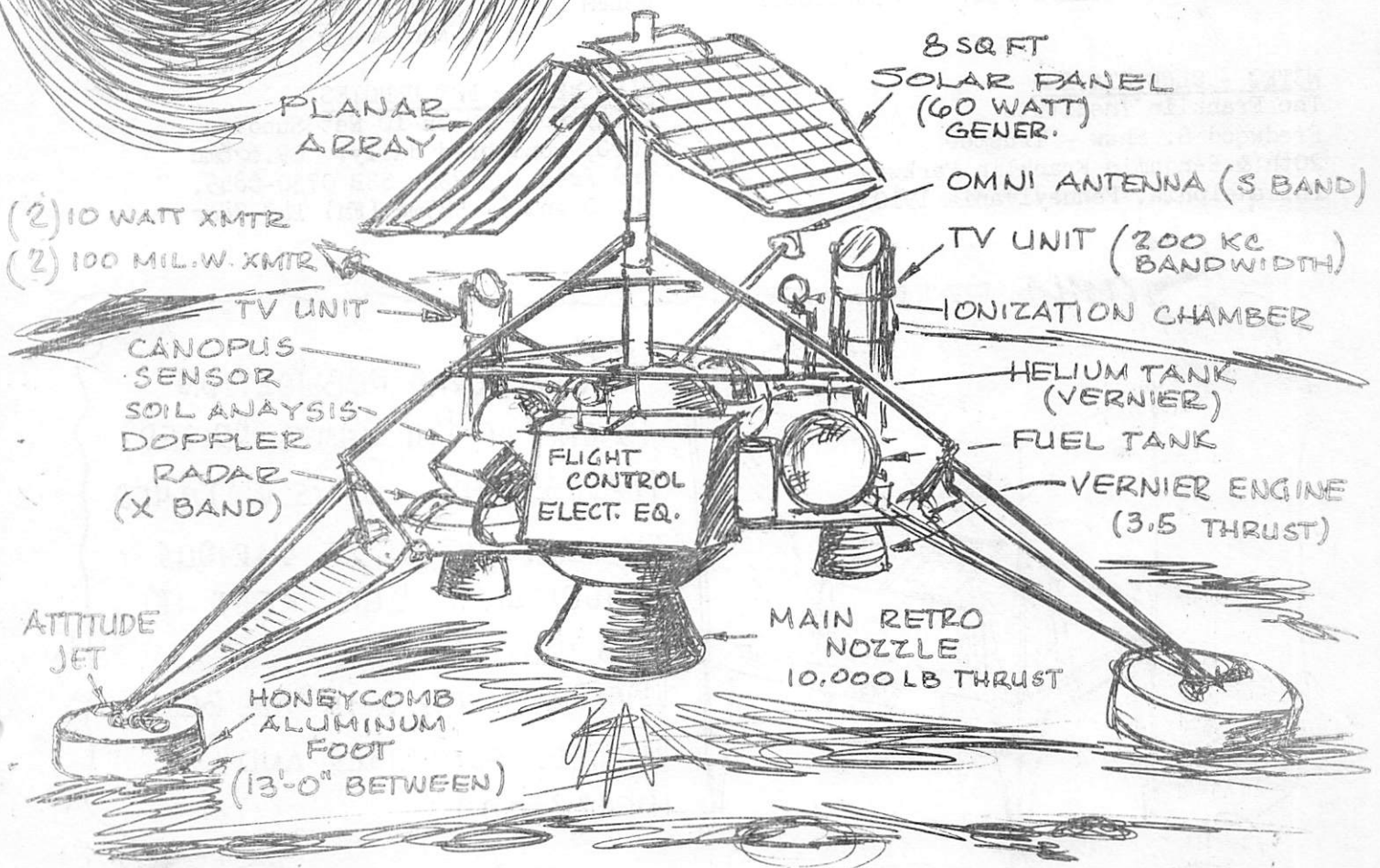
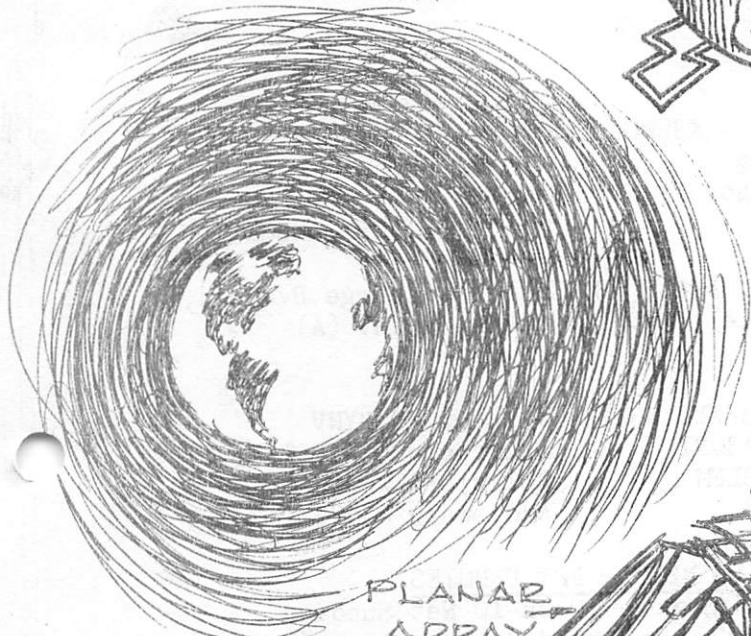
The BLURB

AREA.
MEMBER

July
'66



surveyor



The BLURB is published monthly by and for the members of the Phil-Mont Mobile Radio Club. Our purpose is to further the interest of amateur radio in general and mobile radio in particular. We endeavor to keep the news accurate, interesting, and educational. Copying and quoting is permitted, with a credit line, and we gladly exchange subscriptions with other clubs.

DEADLINE: All material must be in the hands of the Department Editor before the 15th, as the BLURB is mailed on the last Monday of each month.

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Tech-ni-gram W3QZO & Comm.

Swap/Shop K3QQH

Chan. Chat. W3CHZ & W3QV

Features W3MHR, W3PKY, W3JYA

Art WA3CNI

Publisher W3LEM

Printer W3YHV

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Collator W3QQH

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W3TKQ - CLUB STATION

The Franklin Institute

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Philadelphia, Pennsylvania 19103

CLUB NETS & FREQUENCIES

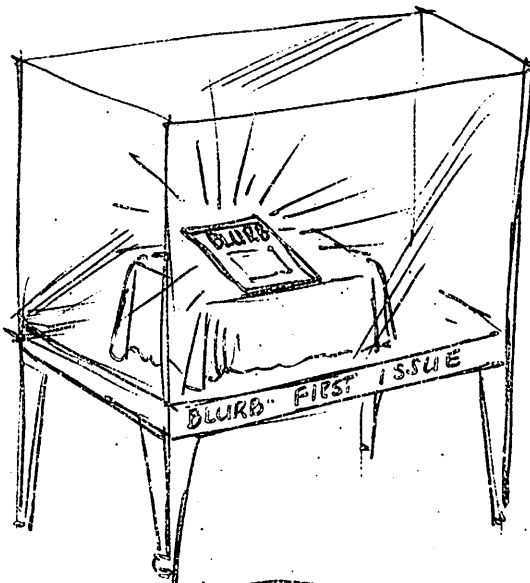
29.493mc - 10-on-10 Net Sundays

1000, monitored daily. 29.626mc

2nd Freq., 3993kc SSB 0730-0845,

50.70 and 52.525mc (FM) 147.78mc

Sama HALF ACRE.



YOUR BLURB PUBLICATION
IS ONE OF PHILMONT'S PRIZED
POSSESSIONS... IT IS WATCHED
BY MANY EDITORS OF VARIOUS
PERIODICALS... LETS KEEP IT
ON A HIGH STANDARD OF
WORKMANSHIP... WITH THE BEST
POSSIBLE EDITORIALS AND
INFORMATION..

THE PREZ SEZ

For those who did not attend our regular June meeting, I want to say that I'm glad we had the so called "business" meeting. The happenings will be reported in another part of the BLURB; however, my personal reaction to the discussion on balloting was - I was glad to hear directly from W3MHR and W3AWH regarding their thoughts in the matter. I was somewhat surprised at the many offered solutions to the problem; no one seemed to have the same solution although any of the solutions undoubtedly would work if administered properly. However, for the time being we have a way, one that was recommended by a competent committee and accepted by our membership, this way deserves a fair trial - so this November we will go with no "absentee balloting".

I am glad for the opportunity to have the next four issues of the BLURB put out by KUD, HIE, AWH, and QZO. This is bound to give CDY not only his needed respite, but will surely give all of us the benefit of new thoughts, new sources of information and new incentive in many ways. I have been trying to get things done this year in different ways to stimulate interest in club activities - this is one more opportunity. I am sure that when the summer is over, we will all be glad to see CDY back in the saddle again.

We had such a good time earlier in the year with our CW contest that I want to try it again. I am sure that now when everyone knows what will happen in such a contest we will have more participation and consequently more fun for everyone.

Best 73

Fred, W3ADV

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IT SEEMS TO ME

It certainly seems like old times, putting the BLURB together, wondering if there will be enough material and then finally trimming a little here and a little there to make it fit.

I have been out of touch with the BLURB operation for over a year now and only hope that I can do an acceptable job in this brief "fill-in". At least you know that I can't last forever and that Lloyd will be back in the fall !

Seriously, I would like to thank WA3CNI for a timely and well done cover and K3RTR for jumping right in to lend a hand.

de K3KUD

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PHIL-MONT CALENDAR FOR JULY

Monday, July 11 Regular meeting at the Franklin Institute.

Wednesday, July 20 Mid-month at W3NIP. The pool will be open, bring your trunks and towel.

Monday, July 25 BLURB folding at W3LEM.

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CLUB NEWS AND ACTIVITIES

The regular June meeting, held at the Franklin Institute on June 6, was somewhat unusual in that it was our first Annual Business Meeting.

In place of the usual entertainment or instructive type program, President Fred Shaw, W3ADV, heard reports from standing committees, made necessary announcements and then moderated a discussion of our by-laws as they relate to our voting procedures.

Briefly, George Weed, W3MHR and John Tinaglia, W3AWH, discussed the various problems which have arisen in the past as a result of proxy or absentee voting; the work of the By-laws Committee in attempting to correct inequities, and finally, the reasoning behind the elimination of the absentee ballot. The meeting was then opened to general discussion, and ten of the members expressed their opinions, nine in person and one on tape, but all in two minutes or less, thanks to our moderator.

The discussion was lively and interesting, but it should be noted by all our members that NO CHANGE IN THE BY-LAWS IS BEING ADVOCATED OR CONTEMPLATED AT THIS TIME ! The present by-laws will control the voting at our next election in December. YOU MUST BE PRESENT TO VOTE!

Paul Bohlander, W3VVS introduced five visitors to the twenty-eight members present and Al Hamilton, W3GIF did his usual fine job with the refreshments to round out another Phil-Mont evening.

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COMMITTEE REPORTS

Field Day: Bill Bubeck, W3YHV will report fully in the August BLURB

Comm Truck: Jim Spencer, W3QQH reports that the Red Truck required surgery to remove stones from the gas tank, but once again, all is well. New tires are being obtained for the trailer, as is new carpet, the money for which was obtained by devious means.

Membership: Al Jorrett, W3OWK briefly explained the procedure for making application for membership in Phil-Mont. Al then brought to the floor the application of John Mooney, W3OM. Upon vote of the members present, John was unanimously elected to membership in Phil-Mont. Congratulations and welcome, John!

COMMITTEE REPORTS (cont'd)

Technical: Bob Thomas, W3QZO discussed the status of the upcoming Phil-Mont mobile rig - about 40 watts, designed by W3QV and W3QZO, with the prototype built by W3QV. When tested and in good working order this rig is intended to be the forerunner of many more - built by Phil-Monters.

Social: Jack Mahoney, W3DJW reports that the target date for the banquet is November 12 and the Tentative location, the Barclay on City Line Ave, (Williamson's) More information on this and some other social doings in the near future.

Program: Jim Bock, K3PHC informed us that the program for July will feature a discussion of Transmission Lines by W3MOO of the Bell Telephone Company.

Net Control: Ernie Juliani, W3D\$G, patiently listened to several very minor complaints relating to the IO-on-IO Net, said "Thank you!", and sat down, indicating that the net will continue to be run in its present fine style.

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Keep in mind that school is out - be very careful when driving and extra careful when "mobile in motion".

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NEW BOOK

"Dictionary of Electronics" - Includes sections covering units, abbreviations, and graphic symbols as well as a complete listing of modern electronic terms and words, with illustrations. 410 pgs, 5-3/8" x 8", soft cover.
Published by Hart Publishing Co., Inc., 510 sixth Ave., NYC, 10011.

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Please note that the following members will be Guest Editors for the month noted - send all material directly to the GE by the 15th of the preceding month:

Bill Clayton, K3HIE	August	Close July 15
John Tinaglia W3AWH	September	Close Aug. 15
Bob Thomas, W3QZO	October	Close Sept. 15

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A ringing in the ears is usually no trouble - until one tries to answer it !

MODEL AIRPLANE MEET

On Sunday, June 12, Johnsville NADC, Lcdr Winfrey, Coordinator, played host to the AMA for the Annual Free-Flight Fling. Phil-Mont was requested to furnish radio equipped retrieval cars and came through in fine style. With all classes of models from hand launch glider thru unlimited, rubber towline, and all classes of gas powered models participating, early morning offered exciting possibilities. On hand were AMCOM (W3RQZ) and mobiles W3GIF, QZO, BBB, MHR, DSG, EQV, K3 UWO and WQQ.

Beginning at 0830 the Met Office showed 20-30 knot winds with little chance of lowering. Weather was otherwise beautiful, bright and clear. By 1600 only 30 models had been returned. AMA officials blamed the small number of flights on the continuing winds. Contestants were reluctant to fly an event because of the almost certain chance that some damage or loss would occur. At any rate, our part of the work was well handled. W3RQZ operated Channel 1 throughout to the mobiles and walkie-talkies, and used 52.525 mc simultaneously for liaison with fixed stations. Visitors watched the ball game on TV in the trailer while listening to the safety-service receivers - all in air-conditioned comfort. NADC has installed a 220v outlet for our use and will permanently mount same at the earliest opportunity. Don't forget we have a much larger event coming up in August, with all classes of models participating. See you there.

de Jim, W3QQH

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NOTE

Gerry, W3JKH offers the following:

FREE schematic, alignment procedure and parts list for 33 mc IF amplifiers from RCA microwave link receivers which we obtained from Western Union.

Contact Gerard A. Baldauf, W3JKH; 175 Wernersville Blvd, Wernersville, Pa., 19565. Phones (215) 678-3980; 929-5811 exts. 2113, 2116, 2305.

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THE BLURB STAFF AND THE MEMBERSHIP OF PHIL-MONT
EXTEND SINCERE SYMPATHY TO JON BALCH, K3HWX
ON THE LOSS OF HIS MOTHER DURING THE PAST WEEK

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We have been informed that the new Phil-Mont Directory is in the hands of the printer. We hope that it will soon be ready for distribution.

COMING EVENTS

The following list of events which will take place in the near future should be of interest to both Phil-Monters and other amateurs in this area. The information is as nearly correct as possible.

Saturday-Sunday, August 13-14

"Paddlerama" with Phil-Mont providing communications. W3NIP and Phil Allen will be canoe-mobile.

Sunday, August 21

Model airplane meet, NADC Johnsville. Phil-Mont providing mobiles-

Date unknown

Reading Radio Club Clambake. This will be in August. W3OWK will have the information for us.

Saturday, September 10

South Jersey Radio Assn Banquet. Celebrating 50 years of amateur radio. \$7.50 per person, send to PO Box 316, Haddonfield, NJ, before July 30.

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PHILADELPHIA COUNTY ARPSC

George Van Dyke, W3ELI, SEC for Eastern Pa. informs us that the group is going all out to overcome the lethargy which has descended upon it. There will be a regular meeting on Wednesday, July 6. Meeting place is Germantown Hall, Germantown and Haines, the time is 8:00 PM. The parking facilities are good, and George is hoping for a very fine turnout.

6 meter net time has been changed to 7:30 PM. Day and frequency not stated. Consideration is also being given to a 2 meter net on 145.2 mc at 7:00 PM on Thursdays. Let George know if you are interested.

If you have never taken part in the activities of ARPSC, you might very well be missing something - why don't you give it a try?

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Going to Canada on your vacation? Be sure to drop a line to the Ministry of Transport, Ottawa, and get the necessary forms to permit mobile operation.

If Mexico is your vacation spot, contact the Mexican Consul, PSFS Bldg, 12th and Market Sts., Phila., Pa. for information regarding operation.

CHANNEL CHATTER

We hear that Karl, W3BS is playing around with 6-meter mobile beams. Not only are the results good, but we also hear that Betty is considering hanging wash on them---Walt, K3OJA has been transferred to Wilmington and would like to talk to anyone who does not go to work in the middle of the night (like 7:30 AM)---Sam, K3RTR was an invited operator at NSS on Armed Forces Day and one of the stations that he worked was Brad, W3QV. He also worked W6HZ, Herbert Hoover, JR via RTTY---Nelson, W3DYP will be going into the hospital in July for an eye operation and will be absent from W3TKQ for about 6 weeks. Nelson feels that this operation, which is one of a series, will do a great deal for his sight. We wish you all the best. Nels.---Sam, K3RTR, and his wife Anna celebrated their 47th wedding anniversary on June 12 and are eagerly looking forward to the GOLDEN ONE.---Lloyd Sherman, W3CDY our wandering editor bought a Mustang and is off to visit his son at Great Lakes NTS---Al, W3GIF has owned a new Buick for over two months and never let the secret leak out! He is still riding in the Pontiac (we hear that no junk dealer will take it). Meanwhile, Al is converting his mobile rig to 12 volts and preparing to make the switch---W3CSS, Morry, is moving to Hollywood, Fla---Bill, K3HIE is rumored to be looking for a new bookkeeper---Bob, W3OEC out again after a week's stay in the hospital for some corrective work in the nasal area---Enie, K3GNJ has moved into his new home in Ardsley. Enie will always know when Edge Hill has a fire - the siren is right across the street---Jim, W3QQH finally has mobile rig all straightened out - a marvel of determination---Jim tells us that he managed to get a contact into Milwaukee on 6 meters, arranged for a phone call to Bob, K3CEE, and when all was set-up, found out that Bob had just left for the evening - it was Saturday night!---Sam, son of K3GBA, joined the Navy for four years, thus following in the footsteps of both his mother and father..

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SWAP AND SHOP

For sale:	Minneapolis-Honeywell Transistorized Power Supply. Model W612A. New cond.	\$25.00
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Al Bubeck, K3GNM

For sale:	Remington Electric Typewriter, long carriage, working order.	\$35.00
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Hy Hecht, W3WNC
EL 6 0831

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In the days of the Old West when a cowboy's horse stopped suddenly, it was frequently Injun trouble.

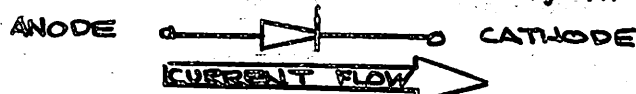
PHIL-MONT TEKNIGRAM

Transistors for Hams by Bob Thomas, W3QZO

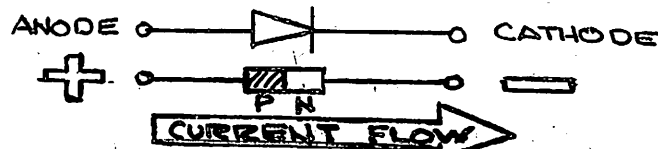
Because of space limitations and the desire to cover a great deal of ground about our subject in the next few months, these discussions will be based on expaining design concepts on the basis of fundamental easy-to-remember rules, which if applied, will bring fame and glory in the amateur world. For example, it will often be necessary to decide if the signal across a semiconductor junction is causing the junction to conduct or be cut off. It helps to think of a diode symbol:



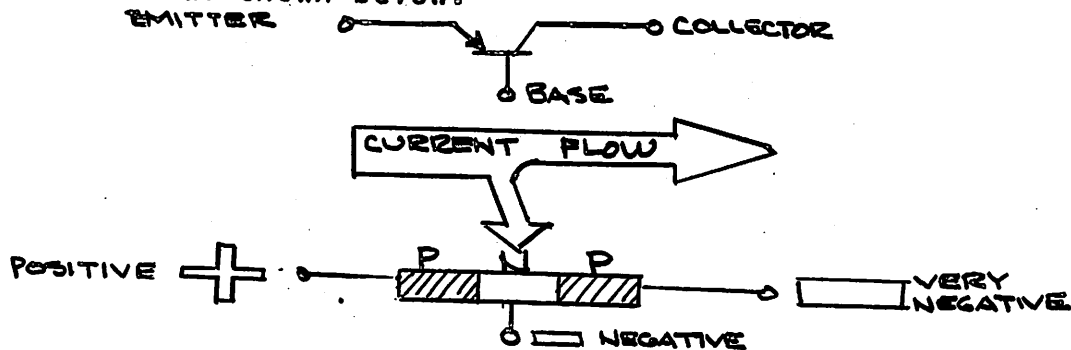
and to remember that the diode passes current only in the direction of the arrow:



Furthermore when we are talking about junction diodes, which most of them are these days, if we could look inside we would find that the anode was made of something called "P" material (because conduction occurs when a positive voltage is connected to it) and that the cathode is made of something called "N" material (guess why). So, whenever you see a diode symbol, remember the following:



If you know anything about transistors this "P" and "N" business may sound familiar because a transistor is basically nothing more than a PN diode to which has been added another slab of "P" material that is intimately associated with the PN junction making up the diode junction. However, although the direction of current flow is still indicated by the arrowhead, the actual path of current, under usual bias circumstances, is modified as shown below:



At this point, the modification of current flow can be explained by means of solid state physics, or you can accept the term "transistor action" and nobody will get embarrassed. At any rate, what happens is that most of the current passes right through the base "N" material from emitter to collector. In a typical amplifier situation the current flow into the emitter might be 10 milliamps, of which 9.8 mls might go on to the collector with the remaining 0.2 mls passing out into the base circuit. The ration of base current to collector current is called the d.c. beta (ugh!) or even worse, h_{FE} :

PHIL-MONT TEKNIGRAM
(continued)

D.C. CURRENT GAIN= β = h_{FE} = $\frac{\text{COLLECTOR CURRENT}}{\text{EMITTER CURRENT}}$

In the example above the d.c. β is 49 (9.8 divided by 0.2) and generally speaking the higher the beta, the better the transistor. Manufacturers have various ways of specifying beta: some are speced as "minimum h_{FE} " which tells you that all transistors of that type will have at least a certain current gain; sometimes both maximum and minimum betas are specified (30-100, for example) so you know exactly what range to expect - this is the best way, but you pay for it; sometimes a "typical" value will be given which tells you nothing - the beta could be anywhere from 2 to 3000. When you buy a "Polypack" of transistors at six for a dollar you don't have any say about the beta (d.c.gain). But cheer up, maybe you are getting all of the gradeouts (units that did not fall within the manufacturer's spec limits) that were above the maximum beta.

Next month we will begin discussion about how a transistor works as an amplifier. The September column will describe the first of several painless methods of designing ham circuits.

BCNU,
W3QZO

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A note of congratulation to the Mobile Sixers and their Editorial Staff - the first issue of M.S.NEWS run with 100% club equipment looks real good. Keep up the good work.

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I would like to add a note of thanks to Jim and Elaine Spencer for the Channel Chatter, the report of the Model Airplane Meet and other miscellaneous items used in this issue.

de K3KUD

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Would you believe -----

Antenna Specialists Company has announced a new CB base station antenna which lights up when there is RF present on it (output, of course).

Shucks, we've heard of hams who lighted every neon light in the neighborhood on occasion!

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